



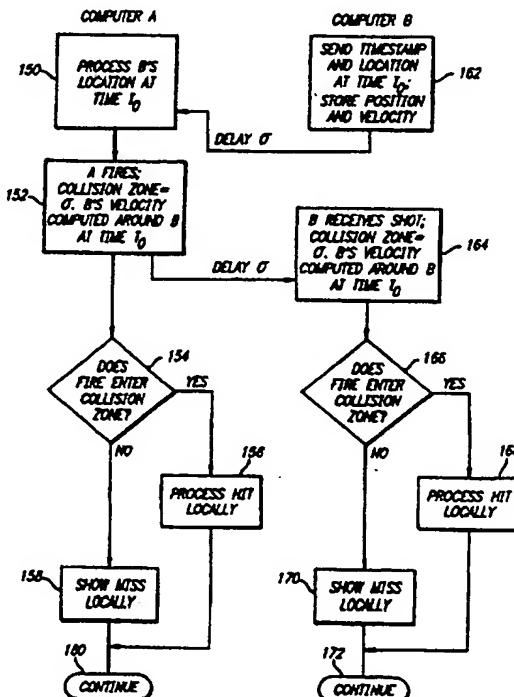
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(54) Title: METHOD AND APPARATUS FOR MINIMIZING THE IMPACT OF NETWORK DELAYS

(57) Abstract

The methods and apparatus of the present invention determine expected network delays and alter program parameters based upon the determined delays. During the implementation of an interactive program, program parameters are adjusted based upon the expected delay and the program is not halted between transmission times. In one embodiment, with reference to computer games, the zone around which a game object is determined to be "hit" is expanded to account for the game object's motion during the delay period. In another embodiment, the effect of the network delay is minimized by not implementing a player's input on the player's computer until a specified time has elapsed.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 96/02348

A. CLASSIFICATION OF SUBJECT MATTER

IPC6: A63F 9/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: A63F, H04Q, G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO, A1, 9222967 (HEWLETT PACKARD COMPANY), 23 December 1992 (23.12.92), see whole document --	31,47
P,X	WO, A1, 9526596 (SCIENTIFIC-ATLANTA, INC.), 5 October 1995 (05.10.95), page 11 - page 13, abstract --	1,32
P,X	WO, A1, 9522233 (NEWBRIDGE NETWORKS CORPORATION), 17 August 1995 (17.08.95), see whole document --	1,32

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International application No.

PCT/US 96/02348

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Catagory*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim N .
X	EP, A2, 0661859 (TELIA AB), 5 July 1995 (05.07.95), see whole document -- -----	31,47

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INTERNATIONAL SEARCH REPORT

Information on patent family members

01/07/96

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WO-A1- 9222967	23/12/92	DE-D,T- 69116685 EP-A,A,B 0522211 JP-T- 6508008 US-A- 5477531	30/05/96 13/01/93 08/09/94 19/12/95
WO-A1- 9526596	05/10/95	NONE	
WO-A1- 9522233	17/08/95	NONE	
EP-A2- 0661859	05/07/95	NONE	

